

REMARKS

This Amendment is in response to the Office Action dated October 6, 2008, in which claims 19-27 were initially rejected.

I. CLAIM AMENDMENTS

Claims 19-27 are amended to replace “the said” with “the” to be more consistent with U.S. practice and grammar. No amendments are made in view of the prior art.

II. CLAIM REJECTIONS UNDER 35 U.S.C. §102(b)

Claims 19-27 were rejected under 35 U.S.C. 102(b) as being allegedly anticipated by Baum, U.S. Patent No. 5,867,478.

A. **Baum**

BAUM discloses an SC-OFDM type modulation designed to reduce the impact of the interferences affecting cellular radio communication systems.

BAUM is not relevant toward claim 19 as filed.

Indeed, according to BAUM, **pilot codes** are used rather than **individual pilot** symbols (see column 5, lines 24-27: « *by using pilot codes rather than individual pilot symbols in each OFDM slot for channel response estimation* »).

According to BAUM, the adjacent emitters thus use orthogonal pilot codes within a preferential embodiment, or non-orthogonal pilot codes with a very weak intercorrelation in a non-preferential embodiment (see column 7, lines 18-22).

Thus, according to BAUM, when a first emitter, located in a first cell, emits data with a **first pilot code**, towards a receiver, there is little or no interference with the data emitted by a second emitter located in a second cell adjacent to the first cell, using a **second pilot code**.

Consequently, at the receiver side, there is not one **single pilot** received at a given time and at a given frequency, as proposed by Applicants in the present patent application, but **several pilot codes coming from different emitters** (see column 12, lines 50-54 : « *the received pilot is actually the weighted sum of a plurality of pilots codes from a plurality of SC-OFDM transmitters* »).

According to the present patent application, on the contrary, **scattered pilots** are used (pilots distributed within said information data elements according to a predetermined pattern). The use of scattered pilots, with distinct patterns for adjacent emitters, enable a receiver to receive **only one pilot** at any moment and any frequency.

Moreover, at the reception side, the present application enables immediate identification of the emitter that sent out the data, from the control information transmission signal.

On the contrary, BAUM needs to superimpose the pilot codes received to codes from a “code base” known by the receiver, so as to identify the emitter (see column 12, lines 44-50: *« by cross-correlating the received, demodulated signals at the pilot code location with a stored, known pilot code for the desired signal »*).

Consequently, BAUM is not relevant to the present claims, as it does not disclose, nor suggest, the idea of receiving only a single pilot at a given time and given frequency.

For example, independent claim 19 requires, “such that at any given moment and at any given frequency, the receiver can only receive one pilot from the emitters.” This element is not disclosed by BAUM.

The Director is authorized to charge any fee deficiency required by this paper or credit any overpayment to Deposit Account No. 23-1123.

Respectfully submitted,

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